

## Chapter 570

### Commonwealth of Virginia

### Sanitary Regulations for Marinas and Boat Moorings



#### PART I

#### ARTICLE 1 - Definitions

§1.1 As used in this chapter, the words and terms hereinafter set forth shall have the following meanings respectively, unless the context clearly requires a different meaning.

"Board" means the State Board of Health.

"Boat" means any vessel or other watercraft, privately owned or owned by the Commonwealth or any political subdivision thereof, whether moved by oars, paddles, sails or other power mechanism, inboard or outboard, or any other vessel or structure floating on water in the Commonwealth of Virginia, whether or not capable of self-locomotion, including but not limited to cruisers, cabin cruisers, runabouts, houseboats and barges. Excluded from this definition are commercial, passenger and cargo carrying vessels subject to the Quarantine Regulation of the United States Public Health Service adopted pursuant to Title 42 of the United States Code and ships or vessels of the U.S. Government and boats which are tenders to larger boats moored or stored at the same facility.

"Certificate" means a written approval from the Commissioner or his designated representative indicating that plans for sanitary facilities and sewage facilities meet or satisfy the minimum requirements of this chapter and §32.1-246 of the Code of Virginia.

"Commissioner" means the State Health Commissioner whose duties are prescribed in §32.1-19 of the Code of Virginia.

"Division" means the Division of Wastewater Engineering, Department of Health.

"Dry storage" means a boat storage or parking space, whether covered or uncovered, at a marina or other place where boats are moored for the purpose of storing boats on land between use.

"Marina" means any installation, operating under public or private ownership, which provides dockage or moorage for boats (exclusive of paddle or rowboats) and provides, through sale, rental or fee basis, any equipment, supply or service (fuel, electricity or water) for the convenience of the public or its leasee, renters or users of its facilities.

"Marine sanitation device" means any equipment, piping and appurtenances such as holding tanks for installation on board a boat which is designed to receive, retain, treat or discharge sewage and any process to treat such sewage.

"Other places where boats are moored" means any installation operating under public or private ownership, which provides dockage, moorage or mooring for boats (exclusive of paddle or rowboats) either on a free, rental or fee basis or for the convenience of the public.

"Owner" means the Commonwealth or any of its political subdivisions and any public or private institution, corporation, association, firm or company organized or existing under the laws of this or any other state or county, or any person or group of persons acting individually or as a group who owns a marina or other place where boats are moored.

"Pump-out facilities" means any device, equipment or method of removing sewage from a marine sanitation device. Also, it shall include any holding tanks either portable, movable or permanently installed, and any sewage treatment method or disposable equipment used to treat, or ultimately dispose of, sewage removed from boats.

"Sanitary facilities" means bathrooms, toilets, closets and other enclosures where commodes, stools, water closets, lavatories, showers, urinals, sinks or other such plumbing fixtures are installed.

"Seasonal slips" means any slip which is used, rented, leased or otherwise made available for mooring or docking of boats during the normal boating season, usually from April through September, or for any period greater than 30 days.

"Sewage" means the spent water or wastewater containing human excrement coming from toilets, bathrooms, commodes and holding tanks.

"Sewage treatment or disposal systems" means device, process or plant designed to treat sewage and remove solids and other objectionable constituents which will permit the discharge to another approved system, or an approved discharge to state waters or disposal through an approved subsurface drainfield or other acceptable method, such as incineration.

"Sewerage facilities" means entire sewage collection and disposal system including commodes, toilets, lavatories, showers, sinks and all other plumbing fixtures which are connected to a collection system consisting of sewer pipe, conduit, holding tanks, pumps and all appurtenances, including the sewage treatment or disposal system.

"Transient slips" means temporary docking or mooring space which may be used for short periods of time, including overnight, days, or weeks, but less than 30 days.

#### Statutory Authority

§32.1-12 and §32.1-246 of the Code of Virginia.

#### Historical Notes

Derived from VR355-17-01 1.1; eff. September 1, 1987; amended by Virginia Register Volume 6, Issue 24, eff. October 1, 1990.

## ARTICLE 2 - General Information

### §1.2 Authority for regulations.

Section §32.1-12 and §32.1-246 of the Code of Virginia provides that the State Board of Health is empowered and directed to promulgate all necessary rules and regulations establishing minimum requirements as to adequacy of sewerage facilities at marinas and other places where boats are moored. These facilities should be sufficient to serve the number of boat slips or persons such marinas and places are designed to accomodate, regardless of whether such establishments serve food.

### §1.3 Purpose of regulations.

This chapter has been promulgated by the State Board of Health to:

1. Ensure adequate sanitary facilities and pump-out facilities, as defined in §1.1 and required by §2.2 of this chapter, are provided at all marinas and other places where boats are moored;
2. Establish minimum requirements as to the adequacy of sewerage facilities at marinas and other places where boats are moored;
3. Guide the State Board of Health in its determination of the adequacy of the sewerage facilities to serve marinas and other places where boats are moored;
4. Guide the State Board of Health in its approval of plans and other data and the issuance of a certificate as to the adequacy of sanitary and sewerage facilities.

5. Notify the Marine Resources Commission that a certificate has been issued; and
6. Assist the owner or his authorized engineer in the preparation of an application and supporting data, as may be required. (§1.7)

§1.4 Administration of regulations.

This chapter is administered by the following parties:

1. The State Board of Health has responsibility for promulgating, amending and repealing regulations which ensure minimum requirements as to adequacy of sewerage facilities at marinas and other places where boats are moored.
2. The State Health Commissioner.
3. The Division of Wastewater Engineering is designated as the primary reviewing agent of the board for the purpose of administering this chapter. It examines and passes upon the technical aspects of all applications, plans and specifications for sewerage facilities to serve marinas and other places where boats are moored. It issues all certificates attesting to the adequacy of the sewerage facilities and notifies the Marine Resources Commission when a certificate is issued or denied.
4. The Deputy Commissioner for Community Health Services directs and supervises the activities of the local health departments in the administration of assigned duties and responsibilities under the chapter.
5. The local health department in each jurisdiction, city, town or county in which there exists, or is proposed, a marina or other place where boats are moored shall (i) be responsible for the processing of all applications submitted by owners, (ii) inspect sites and facilities provided, (iii) issue such permits as required by law, rules or regulations for sewerage facilities and, (iv) lacking in authority to issue a permit, will process such applications in accordance with the policies and procedures of the department. The local health department shall conduct a surveillance program and enforce the provisions of this chapter to ensure proper sanitation and cleanliness of the facilities provided.
6. The Office of Water Programs of the Department of Health of the Commonwealth of Virginia is responsible for the review and approval of sewage treatment works where there is a discharge to state waters, in accordance with the chapter, policies and procedures of the Health Department and the State Water Control Law, §§62.1-44.2 through 62.1-44.34 of the Code of Virginia.

§1.5 Application of regulations to marinas and other places where boats are moored.

- A. Marinas or other places where boats are moored which are not in compliance with the Rules and Regulations of the Board of Health Governing Sanitary and Sewerage Facilities at Marinas and Other Places Where Boats Are Moored which became effective November 15, 1975 [repealed], shall comply with this chapter.
- B. All planned or new marinas or other places where boats are moored which do not exist on the effective date of this chapter shall comply with all provisions of this chapter prior to commencing operation.
- C. All sanitary or sewerage facilities shall conform to the requirements of this chapter when the marina or other place where boats are moored are either expanded, altered or modified.

**ARTICLE 3 - Procedure**

§1.6 Certification general.

No owner shall operate a marina or other place where boats are moored unless he complies with the provisions of §32.1-12 and §32.1-246 of the Code of Virginia and this chapter. Owners shall have in their possession a permit from the Marine Resources Commission to operate a marina or place where boats are moored when so required by §62.1-3 of the Code of Virginia. Where state-owned bottom lands are involved, a plan approved by the department shall be issued prior to construction and the issuance of a certificate to operate.

#### §1.7 Application for certificate.

Any owner, or his duly authorized representative, may make application for a certificate of approval of sanitary or sewerage facilities by applying to the local health department in the jurisdiction where the proposed marina or other place where boats are moored is to be located. The application shall be made on a form supplied by the local health department. The application shall consist of the following:

1. A completed application form which shall set forth the essential data to determine the sewerage facilities necessary to serve the proposed installation;
2. Maps, plans and specifications of the sanitary and sewerage facilities describing how and what facilities will be provided. The plans shall establish the location of the sanitary facilities in relation to other facilities;
3. A description of the proposed method of sewage treatment or disposal. Approval of the treatment works or disposal system must be applied for and obtained under other sections of the Code of Virginia and other regulations; and
4. Any other data as may be pertinent to show the adequacy of sanitary or sewerage facilities to be provided.

#### §1.8 Receipt of data.

Upon receipt of the data set forth in §1.7 in sufficient detail and clarity so as to show that the sewerage facilities meet requirements of this chapter, a plan approval or disapproval will be issued by the Department of Health.

- A. Construction. Upon completion of construction of the sanitary and sewerage facilities at marinas and other places where boats are moored, the owner of the facility, or his duly authorized representative, shall notify the local health department. A certificate to operate shall be issued by the Health Department when it has been determined that construction is in compliance with the approved plan.
- B. Operation. All marinas and other places where boats are moored shall hold a valid certificate to operate in the Commonwealth of Virginia.

#### §1.9 Variances.

The commissioner may grant a variance to any requirement of this chapter if, after investigation, it is determined that the hardship imposed upon the owner or the public by compliance with this chapter outweigh the benefits that the chapter confers, or that there is no potential or actual public health hazard.

- A. Effect of variance. A variance is a conditional waiver of a specific regulation which is granted to a particular or designated marina or other place where boats are moored. It is nontransferrable and it shall be attached to the certificate of the marina or other place where boats are moored to which it was granted. The variance is a condition of the certificate which is revoked if the certificate is revoked.
- B. Application for a variance. Any owner of a marina or other place where boats are moored may apply in writing for a variance. This application shall be submitted to the local health department in the jurisdiction in which the marina or other place where boats are moored is located. This application shall include:
  1. A citation to the chapter from which a variance is requested;
  2. A statement of reasons why the public health and environment would not be detrimentally affected if a variance is granted, and a list of suggested measures that would be implemented to prevent any potential detrimental impacts; and
  3. Facts supporting the need and justification for the variance.

#### §1.10 Suspension or revocation of a certificate.

The board may revoke or suspend a certificate for failure to construct and operate the sewerage facilities in accordance with the conditions of the application and certificate issued or for any violation of this chapter.

§1.11 Administration appeals.

Any applicant or certificate holder who is aggrieved by an adverse decision of the commissioner may appeal in writing within 30 days after the notification of the adverse decision and request a fair hearing. Within 30 days of receipt of notification of appeal, the commissioner shall set a date and place for such hearing. Not later than 30 days following the hearing, the commissioner shall issue a final order with respect to the disposition of the appeal. Such hearing, notice and proceedings shall be conducted pursuant to the Administrative Process Act, Chapter 1.1:1 (§9-6.14:1 et seq.) of Title 9 of the Code of Virginia.

**PART II.**

**Article 1 - Required Facilities for Marinas and Other Places Where Boats are Moored and Their Operation.**

§2.1 General.

- A. All marinas or other places where boats are moored shall provide the minimum number of sanitary facilities for their patrons. These facilities shall be maintained in a clean and sanitary condition. They shall be equipped with toilet tissue, lights where electricity is available and soap and towels where handwashing facilities are required. These facilities shall be available to patrons and users of these facilities at all times during the normal boating season.
- B. Marinas which are operated as part of residential developments, overnight lodging facilities, restaurants or commercial establishments, which are located within 1,000 feet of the shore end of the pier, are exempted from providing separate sanitary facilities, as long as the sanitary facilities at the residence, lodging establishment, restaurant or commercial establishment are available to all users of the marina. This exemption does not apply to (i) marinas associated with restaurants or commercial establishments which allow overnight occupancy of boats and (ii) marinas associated with overnight lodging establishments where overnight occupancy of boats is permitted by persons not registered at the overnight lodging establishment.
- C. Exempt from the requirements of subsection A of this section are other places where boats are moored which serve residents of homes (houses, condominiums, apartments or mobile homes), their bonafide house guests, or registered guests of tourist establishments which provide adequate sanitary facilities that are located within 1,000 feet of the shore end of the pier.
- D. In order to qualify for an exemption under subsections B or C of this section, the owner of such marinas or other places where boats are moored shall provide to the department a signed, notarized statement that all conditions set forth in the aforementioned sections will be complied with by users of the facilities.

§2.2 Location.

Adequate sanitary facilities shall be conveniently located within 500 feet walking distance from the shore end of any dock they are intended to serve or within a reasonable distance under unusual circumstances as determined by the division. It may be necessary to provide sanitary facilities in more than one location in order to meet the needs of the particular site developed.

§2.3 Availability and marking of sanitary facilities.

The sanitary facilities shall be available and readily accessible to users. They shall be appropriately marked with signs readily identifiable to all personnel who might desire to use the facilities.

## §2.4 Marinas.

- A. Minimum number of fixtures to be provided in sanitary facilities. It shall be understood that in many instances the site layout and the use of the marina may require more fixtures than are shown in the table below. If the board, after observation and study, determines that additional fixtures or buildings housing sanitary facilities are necessary, the owner shall provide the additional fixtures so determined. Where dry storage space is provided, each dry storage space is equivalent to one-third of a seasonal slip. The minimum number of fixtures required is contained in Table No. 1 and is based upon the total number of seasonal slips or their equivalent. Separate facilities for male and female personnel shall be provided in a structure or structures.

**Table No.1**

Number of Seasonal Slips	Commodes		Urinals	Lavatories		Showers	
	Male	Female	Male	Male	Female	Male	Female
0-49	1	1	0	1	1	0	0
50-99	1	2	1	1	1	0	0
100-149	2	3	1	2	2	1	1
150-199	2	4	2	3	3	2	2
200-249	3	5	2	4	4	2	2

When the number of seasonal slips exceeds those above on Table No. 1 additional fixtures shall be provided. One commode, lavatory and shower will be provided for each sex for each 100 additional seasonal slips. A urinal may be substituted for a commode when the number of seasonal slips exceeds 100 of the Table No. 1 values. Showers are not required for dry storage boat usage.

- B. Transient slip. When transient slips are available additional sanitary facilities shall be provided. Table No. 2 below shows the minimum number of additional fixtures required. These fixtures may be included in a structure or structures with those fixtures provided for the seasonal slip, provided the accessibility and convenience standards of §2.2 and §2.3 of this chapter are met.

**Table No.2**

Number of Transient Slips	Commodes		Urinals	Lavatories		Showers	
	Male	Female	Male	Male	Female	Male	Female
0-24	1	1	1	1	1	1	1
25-49	1	2	1	2	2	2	2
50-74	2	3	1	2	2	2	2
75-100	2	4	2	3	3	3	3

For each 24 or fraction thereof of transient slips or moorings in excess of those shown in Table No. 2 above, one commode, lavatory and shower shall be provided for each sex. In addition, one urinal shall be provided for each 50 or fraction thereof transient slips in excess of the number shown in Table No. 2.

## §2.5 Sanitary facilities at other places where boats are moored.

Where piped water is available, sanitary facilities shall consist of a minimum of one commode and one lavatory for females and one commode and one lavatory for males for each 100 seasonal slips or fraction thereof and each 50 transient slips or fraction thereof. Requirements for dry storage boat usage shall be identical to those specified in 12 VAC 5-570-150 for marinas. Sanitary facilities may consist of privies where piped water is not available. Walking distance to these facilities shall comply with 12 VAC 5-570-130.

## §2.6 Sewage treatment.

Public or municipal sewage treatment facilities shall be used if there is reasonable access to sewers. When such municipal means of disposal is not available, the owner shall have designed and installed an approved method of sewage treatment. Approved methods of sewage treatment are set forth in the Sewerage

Regulations (1977) or the Sewage Handling and Disposal Regulations (1982, as amended). If permanent water conservation devices are provided, the sewage flow requirements specified in subsections A and B of this section may be reduced upon written approval of the division.

- A. The following shall be used to determine the amount of sewage flow. It is assumed that each slip or dry storage space represents two persons. At marinas providing toilet facilities only, the flow figure shall be 10 gallons per person per day. At marinas providing toilet and shower facilities, the flow figure shall be 16 gallons per person per day except at marinas with only seasonal slips, where the flow figure shall be 10 gallons per person per day for the first 99 slips, regardless of whether showers are available, and 16 gallons per person per day for all slips above the 99 slips. For dry storage facilities the sewage flow shall be calculated using one-third the number of dry storage spaces. In addition, for marinas or other places where boats are moored which have a boat launching ramp and provide boat trailer parking spaces only while the boat is in use, the design sewage flow shall be increased by 10 gallons per day per boat trailer parking space.
- B. Where restaurants or motels are operated in connection with a marina or place where boats are moored the following shall be used as a basis for determining the amount of sewage flow:
  - Motels - 65 gallons per person per day or a minimum of 130 gallons per room per day.
  - Restaurant - 50 to 180 gallons per seat per day. Each installation will be evaluated according to conditions.
- C. The occupancy level of boats used for design of sewage treatment or disposal facilities will be those levels listed in 12 VAC 5-570-170 A. It is recognized that the type of activity and utilization of marina or other places where boats are moored varies and, therefore, additional facilities to provide capacity up to maximum may be required if the need arises. The local health director serving the area in which the marina is located shall make such determination.

## §2.7 Pump-out.

Other places where boats are moored which allow overnight docking or mooring of boats and all marinas, regardless of size or number of boat moorings, shall provide pump-out facilities for pumping or removing sewage from boats. These pump-out facilities shall include all the equipment, structures and treatment or disposal facilities necessary to ultimately discharge or dispose of this boat sewage in an efficient and sanitary manner without causing an actual or potential public health hazard. Exempt from this requirement are marinas and other places where boats are moored which do not allow boats with an installed toilet with a discharge overboard or a sewage holding tank to use any of the services provided, including moorage, except in an emergency. In order to qualify for this exemption, the owner of such marina or other place where boats are moored shall provide the department with a signed notarized statement that boats with installed toilets with overboard discharges or sewage holding tanks shall not be permitted to use the marina or other places facilities.

- A. Availability and operation. Where pump-out facilities are required, the owner shall install, maintain in good operating condition and provide pump-out during normal working hours to users of the marina or other places where boats are moored except in those cases where adequate facilities are provided in accordance with subsection B of this section, then, the normal working hours requirement will apply to the facility using the agreement, as well as the facility with the alternate pump-out service.
- B. Alternate pump-out service. Marinas and other places where boats are moored which provide less than 50 seasonal (or transient) slips for boats of 26 feet or more in length and less than 20 seasonal (or transient) slips for boats of 40 feet or more in length may be exempted from the requirement to install pump-out facilities. Such exemption will be granted by the director of the division whenever alternate pump-out service is provided at a nearby marina or other place where boats are moored, and is evidenced by an agreement signed and notarized by both parties in accordance with the requirements of this section, and filed with the division. Such alternate pump-out service will only be approved by the division when the following criteria are met:

1. That the alternate pump-out service will not require more than 20 minutes to complete from the time a boater has the boat ready to receive the service and has previously requested to have the boat sewage holding tank pumped. The pump-out service for holding tanks of 50-gallon capacity or more (sewage holding) may exceed twenty minutes;
  2. That the alternate pump-out service shall be located within three miles, as measured along the water route, of the facility using the agreement unless the alternate pump-out service is located along the normal travel route to open water, in which case the facility using the agreement shall be within five miles of the alternate pump-out service;
  3. That the alternate pump-out service capacity is sufficient to handle the demand for pump-out service, in accordance with subsection C of this section, that is expected for all of the marinas or other places where boats are moored entering into the above-mentioned agreement;
  4. That a notice shall be posted in a conspicuous location, at the marina or other place where boats are moored not installing pump-out service, that specifies the location of the alternate pump-out service; and
  5. The terms of the agreement provide:
    - a. That the alternate pump-out service will be available to all boats moored at each facility and it will state that the alternate pump-out facility will furnish pump-out services to anybody referred to it by the establishment using the agreement to provide pump-out service, as specified by this chapter; and
    - b. That the agreement will be valid for one year and will be automatically renewable on the anniversary date, unless either party gives at least a 60-day termination notice to the other and to the director of the division prior to the renewal date.
  6. If a termination notice is issued to a facility using an agreement to provide alternate pump-out service, in accordance with 2.7B, then that facility shall either provide pump-out service or obtain a new written agreement, in accordance with 2.7B, by the effective date of the termination of alternate pump-out service.
- C. Minimum design criteria for pump-out facilities. The purpose of these minimum design criteria is to provide the owner and the Department of Health with acceptable methods for pumping, storing, conveying and treatment of the contents from boat holding tanks. The owner shall furnish the following information for each proposed pump-out facility:
1. Pumping equipment. Pump equipment may be fixed or portable; however, this equipment shall be conveniently located for usage and clearly identified or placarded by signs or other notices, indicating any fees, restrictions or other operating instructions, as necessary. A minimum pump capacity of 10 gpm is acceptable at the operating head required to transport the flow to the proper collection or treatment location with such residual head as may be required; however, at marinas with 51 or more slips, greater pumping capacity may be required. Pumps shall be of a macerator type or have sufficient size suction and discharge openings to prevent clogging. Manually operated pumps are not permitted. Pump data from the manufacturer shall include:
    - a. The type of pump (diaphragm or centrifugal, and power);
    - b. Rated capacity (gpm, hp. and head);
    - c. Motor type (electric or gas); and
    - d. Suction and discharge opening size.
  2. Location schematic. If fixed pump-out equipment is proposed, a schematic of the location with elevations for subsections a, b, c, d and e, as described below, shall be included, or if portable pump-out equipment is proposed, a schematic shall indicate elevations for subsections a, c, f and g, as described below:



- a. Mean low water level;
  - b. Elevation of dock;
  - c. Greatest elevation of suction center line of pump;
  - d. Elevation of discharge point;
  - e. Highest point in discharge line;
  - f. Type of dock (floating or stationary); and
  - g. Greatest elevation of any dock.
- All elevations shall be measured with respect to mean low water. If the elevation of mean low water is not known, assume it to be zero.
3. Fittings and hose (piping). Fittings and hoses (piping) which are used in operation of a pump-out facility shall meet the following:
    - a. Suction hose.
      - (1) A friction nozzle (right angle preferred) or wand-type attachment is to be provided on the end of the suction hose. Adapters shall be provided to fit any discharge connection from 1.5 to 4 inches in diameter.
      - (2) A check valve shall be provided on the suction hose at the nozzle.
      - (3) The hose shall be made of flexible, heavy-duty material that will be noncollapsing and nonkinking. The length of this line shall be determined on an individual case basis.
      - (4) If the suction line is to be installed in such a manner that sewage would discharge from the line when the pump is removed for service, a gate valve shall be provided on the pump end of the suction line.
    - b. Discharge hose and piping.
      - (1) The discharge hose or piping shall be equipped with watertight, permanent or positive locking type fittings and connections.
      - (2) Where flexible discharge hose is used, the hose shall be made of heavy-duty material and be nonkinking and noncollapsing.
    - c. Discharge line.
      - (1) A gate valve shall be provided on the discharge line at the pump;
      - (2) Suitable connections on the end of the discharge line shall be provided to prevent it from coming loose during discharge; all nozzles and fittings are to be positive locking, male and female.
      - (3) The discharge line must not be subject to freezing or leaking into the water course.
      - (4) Sewer lines on piers shall be located below water distribution lines. Water and sewer line separation and sewer line, and water source separation requirements are set forth in the Waterworks Regulations (12 VAC 5-590-10 et seq.) and the Sewage Handling and Disposal Regulations (12 VAC 5-610-10 et seq.).
      - (5) The discharge line connection to the pump-out receiving facility shall be fixed in place in such a manner as to prevent it from coming loose during discharge.
    - d. Pump-out facilities shall include equipment for rinsing the boats' holding tanks. Where potable water will be used for rinsing the holding tank, a backflow prevention device shall be installed on the water service line. A minimum of a hose bib type vacuum breaker shall be provided.
  4. Other devices or methods of removal. Other devices or methods of removal of contents from boat holding tanks may be approved by the Commissioner on an individual case basis.
  5. Onshore facilities. Contents from boat holding tanks shall be discharged to (i) a public wastewater collection system in which sewage is conveyed to an approved treatment facility; (ii) a holding tank whereby sewage may be stored until it is taken in an approved manner to an approved treatment facility; or (iii) directly to an approved sewage treatment facility.

- a. For discharge to a public wastewater collection system, the following will be required: The owner of the marina or other place where boats are moored shall submit evidence, in writing, (i) of consent from the owner of the system, (ii) from the owner of any conveyance systems located downstream, which may be affected, and (iii) from the owner of the ultimate treatment facility. Verification shall be given that there are satisfactory provisions for emptying the contents from portable toilets in a sanitary manner.
- b. If sewage is to be stored in a holding tank, the holding tanks shall be sized, constructed and located to meet the criteria
  - (1) Size of holding tank. Marinas or other places where boats are moored shall size the holding tanks based upon the following tabulations:

Total Number of Boats Serviced with Holding Tanks	Required Onshore Holding Tank - Volume(gallons) Minimum
1 - 20	250
21 - 40	500
41 - 60	725
61 - 80	1000
81 - 100	1200
100 +	2000

- (2) Construction of holding tank.
  - (a) The holding tank shall be designed so that it is watertight and not subject to any infiltration or any leakage.
  - (b) When holding tanks are made of material other than concrete, the internal surface of the holding tank shall be protected from corrosion. Materials used in the manufacture and installation of holding tanks shall be resistant to deterioration by prolonged or frequent contact with deodorizing chemicals, sewage decomposing chemicals, sewage, freshwater and saltwater.
  - (c) When holding tanks are made of material other than concrete, the outside surface of the holding tank shall be protected from corrosion.
  - (d) The holding tank shall be constructed of materials capable of withstanding the forces exerted on its walls.
  - (e) The holding tank shall be fixed in place unless it is part of an approved mobile pump-out unit.
  - (f) Provisions shall be made to assure that the holding tank can be completely emptied. The tank shall be essentially emptied when pumped out.
  - (g) The holding tank shall be adequately vented. Screened, elbowed down vents installed at the top of the tank will serve this requirement.
  - (h) The inlet/outlet of the holding tank shall be compatible with the proposed method of removal.
  - (i) There shall be satisfactory provisions for emptying the contents from portable toilets in a sanitary manner.
- (3) Holding tank location. Separation distance between holding tank and various structures and features are contained in Table 4.4 of the Sewage Handling and Disposal Regulations.
- (4) Any person who removes, or contracts to remove, and transport by vehicle, the contents of a holding tank shall have a written sewage handling permit issued by the Commissioner (see the Sewage Handling and Disposal Regulations).

- c. Sewage treatment plant. Disposal of holding tank wastes shall not be allowed at small sewage treatment plants where shock loading may result or disinfectants and odor inhibitors will affect the operation of the treatment facility. Whenever feasible, the collected sewage shall be discharged directly to the sewer system of a large sewage treatment facility or transported for eventual treatment at a large plant.

§2.8 Sewage dump station.

- A. All marinas and other places where boats are moored, regardless of size or number of boat moorings, shall have an acceptable receiving station for sewage from portable toilets used on boats. The owner shall install, maintain in good operating condition and provide a sewage dump station to users of the marina or other places where boats are moored. Exempt from this provision are marinas or other places where boats are moored, which also qualify for the §2.1 B or §2.1 C exemption, provided the owner of the sanitary facility will allow the dumping of the contents of portable toilets into the sanitary facilities.
- B. Availability and operation. Where a sewage dump station is required, the owner shall install, maintain in good operating condition and provide the facilities to users of the marina or other places where boats are moored.
- C. Minimum design criteria for a sewage dump station. The purpose of these minimum design criteria is to provide the owner and the Department of Health with acceptable methods of discharging sewage from a portable container into a sewage holding tank or a sewage treatment system. The same criteria as set forth in §2.7B5 for contents from boat holding tanks will apply for sewage dump stations. The sewage dump station receiving unit shall be a minimum of 12 inches in diameter and be equipped with a cover that has a lip of sufficient size to prevent it from accidentally being removed. If the unit is designed to drain, the drain shall be a minimum of four inches in diameter and equipped with a fly tight cover.